What is claimed is:

1. An automated testing method for use in a communications network with a plurality of different clocks, the method comprising:

storing clock error information for said plurality of different clocks;

monitoring a plurality of network points to detect events;

generating a set of test results including detected events and corresponding event times, at least some of said event times having been obtained from timing information corresponding to different clocks;

processing said set of test results to generate set of timing corrected test results, said processing including modifying at least some event times as a function of said stored clock error information;

comparing events and corresponding event times included in the set of timing corrected test results to expected events and corresponding expected event times included in a set of expected test results; and

generating a set of test result information including information indicating differences between the set of timing corrected test results and expected test results.

2. The method of claim 1, further comprising:

storing a set of relative timing test results, said set of relative timing test results including expected events and relative event times corresponding to the expected events, said relative times being expressed relative to at least one of a test stimulus time and a preceding expected event time; and

processing said set of relative timing test results using stimulus time information to produce said set of expected test results, said expected event times being generated as a function of said stimulus time information and said relative times.

3. The method of claim 2, wherein said step of generating as set of test result information includes identifying, as a function of said comparing, detected unexpected events and undetected expected events.

4. The method of claim 3, wherein detected events included in said set of timing corrected test results are identified as detected unexpected events if the detected event and the timing associated with the detected event do not match an expected event and the timing associated with said expected event.

5. The method of claim 3, wherein undetected expected events are events included in said set of expected test results which are not detected in the set of time corrected test results at the expected time.

6. The method of claim 5, wherein said step of generating as set of test result information includes identifying, as a function of said comparing:

expected undetected events which include events in the expected test results which are not found in said set of time corrected test results.

7. The method of claim 6, where said set of expect test result includes lists of expected events arranged based on causal dependency; and

wherein said step of generating a set of test result information includes listing at most one undetected expected event corresponding to each list of expected events arranged based on causal dependency included in said set of expected test results.

8. The method of claim 1, wherein said stored clock error information includes information relating to clocks included in different routing devices, wherein said set of test results includes detected events corresponding to different network links and wherein time information associated with detected events corresponding to different network links is obtained from clocks included in different routing devices

9. The method of claim 8, wherein said monitored network points correspond to different points in a system including at least four active network routing devices; at least two monitored network points corresponding to the output of two different network routing devices.

10. The method of claim 9, wherein said four active network routing devices are telephone switches.

11. The method of claim 9, wherein said four active network routing devices are IP packet routers.

12. A testing apparatus for performing communications system testing, said communications system including a plurality of routing devices having different time clocks, the apparatus comprising:

timing information corresponding to at least some of said clocks indicating timing differences between said at least some clocks;

relative timing expected test results including expected events and relative expected event times, each of said relative expected event times being expressed relative to a test stimulus or another expected event time;

an expected results translator module for translating the relative timing information included in said relative timing expected results to actual times as a function of at least one test stimulus time, said expected results translator module producing timing corrected expected results;

raw test results retrieved from monitoring points in said communications system, said raw test results including detected events and detected event times obtained from different clocks ;

a timing correction module for processing said raw test results as a function of said timing information to generate a set of detected timing corrected results; and

an analysis module for processing said timing corrected expected results and said detected timing corrected results to generate a set of test results including information identifying undetected expected results and detected unexpected results, said undetected expected results and said detected unexpected results being determined as a function of a comparison between said timing corrected expected results and said detected timing corrected results.

13. The apparatus of claim 12, further comprising:

a report generation module for classifying detected timing corrected events as a function of the comparison between said detected unexpected results and said timing corrected expected results, said classifying including classifying events as detected unexpected events when said detected timing corrected events do not match an expected event.

14. The apparatus of claim 13, wherein said timing information includes clock error information for a plurality of different clocks included in said communications system.

15. The apparatus of claim 14, further comprising:

means for detecting events at a plurality of different test points in said communications system, said test points including a point at which said stimulus can be monitored and a point separated from said stimulus point by at least one routing device.

16. The apparatus of claim 15, wherein the communication system is a telephone communication system including at least four signal transfer points, said plurality of different test points including inputs and outputs of at least three different signal transfer points.

17. The apparatus of claim 15, wherein the communications system is an IP packet routing system and wherein said plurality of different test points includes inputs and outputs of at least three different routers.

18. The apparatus of claim 15, further comprising:

stored test stimulus information; and

means for introducing test stimulus including multiple link failures into said communications system according to said stored test stimulus information.

19. An automated test system for testing communications networks including a plurality of nodes, each of said nodes including a different clock, the test system including:

network node clock information including information suitable for synchronizing time values received from said multiple clocks;

a set of detected events and detected event times;

means for correcting said detected event times as a function of network node clock information to synchronize the time values obtained from different network node clocks; and

means for comparing the detected events and corresponding corrected event times to expected events and corresponding expected event times to identify unexpected detected events.

20. The system of claim 19 wherein said means for comparing further identifies undetected expected events.

21. The system of claim 20, wherein said detected events include events corresponding to a link failure, said test system further comprising:

means for monitoring the failed link and a communications link separated from the failed link by at least two network nodes including routing functionality.